

# **SURGICAL CLAMP DEVICES AND METHODS ESPECIALLY USEFUL IN CARDIAC SURGERY**

## **Abstract of the Disclosure**

A clamping and fluid delivery device (50) for occluding a vessel (12) during a surgical procedure. Generally, the device (50) includes an internal core portion (52) having a distal end (52a) with a sealing surface and opposite side surfaces comprising sealing surfaces. The core portion (52) is inserted transversely into the vessel (12). Opposed, external clamping arms (62, 64) move together outside the vessel (12) and clamp the vessel (12) against the core portion (52). Padding (124) the sealing surfaces on opposite sides of the core portion (52), as well as on the distal end (52a) engage the internal walls (12a) of the vessel (12) and are opposed by padded clamping surfaces (120, 122) of the arms (62, 64). The core portion moves distally simultaneously with the clamping action of the arms to provide a distal seal. A bypass cannula (58) and cardioplegia cannula (60) fluidly couple the core portion (52) to deliver blood and cardioplegia fluid to opposite sides of the core portion (52).